

NONPROVISIONAL APPLICATION FOR LETTERS PATENT
UNITED STATES OF AMERICA

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Be it known that I, **JEFF BLEYAERT**, residing at **107 Bascomb Drive, Woodstock, Georgia 30189**, a citizen of the United States,
10 have invented certain new and useful improvements in an

APPARATUS AND METHOD FOR CLEANING A PAINT ROLLER

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of which the following is a specification.

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APPARATUS AND METHOD FOR CLEANING A PAINT ROLLER

TECHNICAL FIELD

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The present invention relates generally to painting supplies and accessories, and more specifically to an apparatus and method for cleaning a paint roller, wherein the present invention, in conjunction with a pressurized cleaning fluid, enables the expeditious and convenient removal, containment, and disposal of paint from a paint roller, yet effectively shields the user from paint spray (i.e., paint-soiled water or other solvent) during the cleansing process.

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BACKGROUND OF THE INVENTION

Paint roller assemblies are commonly utilized by both professional painters and homeowners for fast and efficient painting of a selected surface. Most paint roller assemblies typically comprise a handle carrying a substantially cylindrically-shaped rotatable wire frame for the slidable receipt and retention of a cylindrically-shaped paint roller cover thereover. The paint roller cover is traditionally fabricated from an inner cardboard sleeve covered with a nap

composed of selected tufted fibers, sheep skin, fabrics, sponges, or like, adapted to absorb or lift paint from a paint tray. The rotatable wire frame enables the paint roller cover to roll over a selected surface, and thus, evenly deposit and spread the absorbed paint thereover.

Following completion of a particular painting project, many painters or homeowners will clean and reuse the paint roller cover in an effort to reduce the overall cost of the painting project. Unfortunately however, proper and thorough cleaning of the paint roller cover is often difficult, burdensome and presents obvious ramifications. Specifically, if the paint roller is not thoroughly cleaned, vestigial paint residue will dry or harden and cause clumping of the roller nap, and thus, during subsequent reuse of the paint roller cover, result in an uneven spreading or painting pattern over a selected surface. Additionally, such dried paint residue may flake from the paint roller cover and either adulterate the fresh paint, or deposit onto the painted surface during contact of the paint roller cover therewith. Moreover, in those instances when a water-based, and thus water soluble, latex paint is utilized, common practice dictates the application of directing a flow of water over the paint roller cover to forcefully remove residual paint

therefrom. However, such a process inescapably results in the splatter of paint, and is thus a characteristically messy method of cleaning. Cleaning and removing oil-based paints from paint roller covers requires the application of solvents thereto, wherein spillage or splatter of the solvents not only results in additional mess, but may further result in contamination of the environment and ground-water supply if utilized over earthen surfaces, or the potential ruination of indoor or non-earthen surfaces.

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Although many paint roller cleaning assemblies are available, each present use and structural design limitations that render application of same highly impractical and inefficient. For instance, many available paint roller cover cleaning apparatuses require that the paint roller cover be removed from the wire frame of the paint roller assembly prior to cleaning same, wherein the paint roller cover is subsequently engaged over a rotational spindle apparatus housed within a bucket. Thereafter, a pressurized stream of cleaning fluid (i.e., water) is directed over the roller cover at a substantially oblique angle in an effort to forcefully drive or remove paint residue therefrom. The pressurized stream of cleaning fluid causes the roller cover engaged over the

rotational spindle to rapidly spin about the spindle axis, and thus, receive the pressurized stream of cleaning fluid substantially thereover. Unfortunately however, because such devices require that the paint roller cover be removed prior to
5 cleaning same, the user must remove the paint-soaked roller cover from the wire frame of the paint roller assembly, thereby subjecting his/her hands to wet paint, and thus exacerbating the overall cleaning process. Examples of such devices may be seen with reference to U.S. Patent No. 4,311,158 to Harvey, U.S.
10 Patent No. 4,401,476 to Klaiber, U.S. Patent No. 4,708,152 to Hibberd, U.S. Patent No. 5,337,769 to Howe, and U.S. Patent No. 5,409,027 to Glunt.

Still other devices are designed such that the paint roller
15 cover may remain on the wire frame of the paint roller assembly during the cleaning process. Such devices typically include a cylindrical housing or tube possessing a diameter and length slightly greater than a conventional paint roller cover for facilitating reception of same within the housing. A water hose
20 or similar water supply line may be secured to the housing for introducing water therewithin for washing the roller cover. Unfortunately however, in view of the small dimensional difference between the diameter of the cylindrical housing and

the diameter of the paint roller cover, the narrow area between the inner wall of the housing and the external surface of the paint roller cover is insufficient for proper water flow and drainage of paint and water into a communicating collection
5 reservoir, particularly in view of the continuous and pressurized stream of water directed across the roller cover. As such, a chaotic or turbulent paint-and-water mixture develops within the housing of such devices, wherein the paint-and-water mixture is constantly being propelled or reintroduced over the
10 nap of the paint roller cover, therefore requiring excessive amounts of water to be directed thereover to ensure thorough cleaning of same.

Therefore, it is readily apparent that there is a need for
15 an apparatus and method for cleaning a paint roller, wherein the present invention, in conjunction with a pressurized cleaning fluid, enables the expeditious and convenient cleansing of a paint-soiled paint roller cover, yet permits the paint roller cover to remain on the wire frame of the paint roller assembly
20 during the cleaning process. There is a further need for such an apparatus that effectively shields the user from paint spray (i.e., paint-soiled water or other solvent) during the cleansing process, and further provides for the effective flow, drainage

and containment of painted-soiled water (or other solvent) leaving the paint roller cover during the cleaning process.

BRIEF SUMMARY OF THE INVENTION

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Briefly described, in a preferred embodiment, the present invention overcomes the above-mentioned disadvantages and meets the recognized need for such a device by providing an apparatus and method for cleaning a paint roller, wherein the present
10 apparatus is adapted to receive and substantially enclose a paint-soiled paint roller cover for the effective cleansing thereof via a pressurized cleaning fluid, and wherein the present invention permits the paint roller cover to remain on the wire frame of the paint roller assembly during the cleaning
15 process; and wherein the present invention further effectively shields the user from paint spray (i.e., paint-soiled water or other solvent) during the cleansing process; all while providing for the effective drainage and containment of painted-soiled water leaving the paint roller cover during the cleaning
20 process, thus reducing the quantity of cleaning fluid utilized and the duration of the overall cleaning process.

According to its major aspects and broadly stated, the present invention in its preferred form is an apparatus and method for cleaning a paint roller, comprising, in general, an enclosure and a collection reservoir.

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More specifically, the present invention is an apparatus and method for cleaning a paint roller, comprising an approximately semi-elliptically-shaped enclosure adapted to cooperatively engage a collection reservoir, wherein an aperture
10 formed through the enclosure is dimensioned to receive a paint roller cover therethrough. The front or forward wall of the enclosure is preferably dimensioned and configured such that upon engagement of the enclosure over the collection reservoir, a slot is formed between the lower or terminal edge of the front
15 wall and the upper edge or rim of the collection reservoir. The slot is preferably sufficiently dimensioned to receive a pressurized stream of cleaning fluid (i.e., water or solvent) therethrough. Preferably, a collection channel or gutter is formed on the inner surface of the forward wall of the
20 enclosure, preferably proximal to the terminal edge of the forward wall. As such, during application of a pressurized cleaning fluid, paint and cleaning fluid propelled against the inner surface of the forward wall is captured or collected by

the gutter and channeled into the communicating collection reservoir. To stabilize the paint roller assembly during the cleansing process of the paint roller cover, a support cradle is disposed on top of the enclosure, wherein the wire support rod
5 projecting transversely outwardly from one end of the rotatable wire frame may be seated and supported within the support cradle.

Accordingly, a feature and advantage of the present
10 invention is its ability to effectively clean a paint roller cover, yet utilize sparing amounts of cleaning fluid as a result of the advantageous structural design and semi-elliptical shaped enclosure of the apparatus that enables the effective and enhanced flow and drainage of paint and cleaning solution during
15 the cleaning process.

Another feature and advantage of the present invention is its incorporation of a gutter means for the effective capture and channeling of paint and cleaning solution into a
20 communicating collection reservoir, thereby enhancing flow and drainage of paint and cleaning solution during the cleaning process.

Still another feature and advantage of the present invention is its incorporation of a gutter means for the effective capture and channeling of paint and cleaning solution into a communicating collection reservoir, thereby effectively
5 shielding the user from undesirable paint spray during the cleaning process.

Yet another feature and advantage of the present invention is its structurally advantageous semi-elliptically-shaped
10 enclosure for effectively shielding a user from undesirable paint spray during the cleaning process.

Still yet another feature and advantage of the present invention is its incorporation of an aperture formed through the
15 enclosure, thereby facilitating the convenient introduction of a paint roller cover therethrough, while maintaining the paint roller cover over the rotatable wire frame of the paint roller assembly.

20 A further feature and advantage of the present invention is its incorporation of a support means for effectively stabilizing the paint roller assembly during the cleaning process.

Still a further feature and advantage of the present invention is its ability to enable the effective removal of water/latex-based paints and/or oil-based paints from a paint roller cover.

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These and other features and advantages of the present invention will become more apparent to one skilled in the art from the following description and claims when read in light of the accompanying drawings.

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BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will be better understood by reading the Detailed Description of the Preferred and Alternate Embodiments with reference to the accompanying drawing figures, in which like reference numerals denote similar structure and refer to like elements throughout, and in which:

FIG. 1 is a perspective view of an apparatus for cleaning a paint roller according to a preferred embodiment of the present invention;

FIG. 2 is a perspective view of an apparatus for cleaning a paint roller according to a preferred embodiment of the present invention, shown in use; and,

5 **FIG. 3** is a side view of an apparatus for cleaning a paint roller according to a preferred embodiment of the present invention, shown in use.

10 **DETAILED DESCRIPTION OF THE PREFERRED**
 AND SELECTED ALTERNATIVE EMBODIMENTS

In describing the preferred and selected alternate embodiments of the present invention, as illustrated in **FIGS. 1-3**, specific terminology is employed for the sake of clarity.
15 The invention, however, is not intended to be limited to the specific terminology so selected, and it is to be understood that each specific element includes all technical equivalents that operate in a similar manner to accomplish similar functions.

20 Referring now to **FIGS. 1-3**, the present invention in a preferred embodiment is an apparatus **10** for cleaning a paint roller, comprising enclosure **20** and collection reservoir **40**,

wherein enclosure **20** is preferably cooperatively engageable to collection reservoir **40**.

Specifically, enclosure **20** is preferably approximately
5 semi-elliptically-shaped, comprising forward wall **22**, rear wall **24** and sidewalls **26** and **28**, wherein enclosure **20** is preferably dimensioned to receive and substantially enclose the full length of a conventional paint roller cover **C**. Preferably centrally formed through sidewall **26** is aperture **30**, wherein aperture **30**
10 preferably comprises a sufficiently dimensioned diameter to readily receive any selected type, size and/or diameter of paint roller cover **C** therethrough.

Preferably, upon cooperative engagement of enclosure **20**
15 with bucket-like collection reservoir **40**, rear wall **24** and sidewalls **26** and **28** form a substantially sealed and frictional fit with upper edge or rim **42** of collection reservoir **40**. However, forward wall **22** of enclosure **20** is preferably dimensioned and configured such that upon engagement of
20 enclosure **20** over collection reservoir **40**, window or slot **32** is preferably formed between lower or terminal edge **22a** of forward wall **22** and rim **42** of collection reservoir **40**. Slot **32** is preferably sufficiently dimensioned to receive a pressurized

stream of cleaning fluid **CF** (i.e., water or other solvent) therethrough for the cleaning of paint roller cover **C**, as more fully described below.

5 Preferably, collection channel or gutter **34** is formed on inner surface **22b** of forward wall **22** of enclosure **20**, preferably proximal to terminal edge **22a** of forward wall **22**. Specifically, gutter **34** preferably extends from sidewall **26** of enclosure **20**, spans the majority of the length of forward wall **22**, but stops
10 just short of sidewall **28**, thereby creating a "drop off" or ledge **34a** from which collected paint and cleaning fluid may be relieved or drained. Additionally, gutter **34** is preferably disposed at a slight downward slant or angle relative to terminal edge **22a** of forward wall **20**, thereby promoting the
15 gravitational drainage of collected paint and cleaning fluid from ledge **34a** and into collection reservoir **40** during the cleaning process. That is, and as more fully described below, during application of a pressurized cleaning fluid, paint and cleaning fluid propelled against inner surface **22b** of forward
20 wall **22** is captured or collected by gutter **34** and channeled into the communicating collection reservoir **40**.

To stabilize the paint roller assembly **P** during the cleansing process of paint roller cover **C**, an approximately U-shaped support cradle **36** is preferably disposed on top surface **23** of enclosure **20**, proximal sidewall **26**, wherein wire support rod **R** projecting transversely outwardly from one end of rotatable wire frame **F** of paint roller assembly **P** may be seated and supported upon support cradle **36** following insertion of paint roller cover **C** through aperture **26** of sidewall **26**, and during the cleaning process of same.

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Referring now more specifically to **FIGS. 2-3**, in use, a user preferably grasps handle **H** of paint roller assembly **P**, and guides or introduces paint-soiled paint roller cover **C** through aperture **30** of enclosure **20**, wherein paint roller cover **C** preferably remains over the underlying rotatable wire frame **F** during the cleansing process, and wherein wire support rod **R** is preferably seated and supported on support cradle **36** (sidewall **26** is shown removed in **FIGS. 2-3** for purpose of clarity). Upon directing a stream of pressurized cleaning fluid **CF** through slot **32** of enclosure **20**, and as a result of a user introduced oblique angle at which the pressurized cleaning fluid **CF** may be brought to contact and forcefully act on the lower portion of paint roller cover **C**, paint roller cover **C** may be forcibly rotated and

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rapidly spun about the axis of rotatable wire frame **F**, preferably in a direction **D** toward inner surface **22b** of forward wall **22** of enclosure **20**. In such a rapidly spinning state, and in conjunction with the continuous, directed, and pressurized stream of cleaning fluid **CF**, paint is forcefully removed from paint roller cover **C** and, in conjunction with the paint-soiled cleaning fluid **CF**, collected within the communicating collection reservoir **40**. Moreover, paint and cleaning fluid forcefully propelled against inner surface **22b** of shield-like forward wall **22** of enclosure **20** is preferably captured or collected within gutter **34** of enclosure **20**, and subsequently channeled into collection reservoir **40**.

It is contemplated within an alternate embodiment that rim **42** of collection reservoir **40** could incorporate a clasp or other suitable retaining clamp for removably securing a water hose or the like thereto. In such an embodiment, it is further contemplated that the retaining clamp could be slidably engaged to rim **42** so as to enable the clamped water hose to be slidably moved along rim **42** for redirecting or concentrating the expelled cleaning fluid/water over a particular area of the paint roller cover **C**.

It is further contemplated in an alternate embodiment that collection reservoir may include drainage spouts for coupling same to a suitable municipal or environmentally-approved drainage reservoir.

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It is further contemplated that a suitably slotted mesh screen or body of densely-packed bristles may extend downwardly from terminal edge **22a** of forward wall **22** and over slot **32**, thereby permitting a water hose nozzle head, or the like, to be introduced therethrough for delivery of pressurized cleaning fluid across paint roller cover **C**, yet effectively protect and shield the user from any back spray of paint that may exist through slot **32**.

15 It is still further contemplated that enclosure **20** may comprises a suitable soap or solvent dispensing mechanism for dispensing select quantities of soap, solvents and/or other paint-removing surfactants during the cleansing process.

20 It is yet further contemplated that support cradle **36** could comprise a snap-shut or latchable cover with suitable internal padding or other conforming or conformable material so as to effectively clamp wire support rod **R** therebetween and thus,

provide the hands-free support of paint roller assembly **P** thereby.

In still another alternate embodiment, it is contemplated
5 that enclosure **20** could comprise scrubbing bristles or similar textured surfaces formed on the internal surfaces thereof, thereby permitting a user to scrub paint roller cover **C** thereover during the cleaning process, or, alternatively, permitting paint roller cover **C** to contact the scrubbing
10 surfaces during rapid rotation of paint roller cover **C** as more fully described above.

In still yet another alternate embodiment it is contemplated that enclosure **20** could comprise an integrally
15 formed slot for enabling the passage of a pressurized cleaning fluid therethrough.

Having thus described exemplary embodiments of the present invention, it should be noted by those skilled in the art that
20 the within disclosures are exemplary only, and that various other alternatives, adaptations, and modifications may be made within the scope of the present invention. Accordingly, the

present invention is not limited to the specific embodiments illustrated herein, but is limited only by the following claims.